

## **Operational Readiness Evaluations at the OPG in 2015**

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### **ABSTRACT**

The Operations Proving Ground (OPG) in Kansas City, MO has been developed as a National Weather Service (NWS) Weather-Ready Nation Services Roadmap initiative to validate the final step in the research-to-operations process. In 2014, the NWS OPG completed Phase 1 of developing its systems and infrastructure. Reaching this milestone enables the OPG to emulate the basic operations of any Weather Forecast Office (WFO) while using either live data or historical datasets to simulate real-time operations. In May of 2014, this functionality was tested as field forecasters evaluated an AWIPS diagnostic tool developed in collaboration with the NWS Meteorological Development Laboratory (MDL) and the NASA Short-Term Prediction and Research Transition (SPoRT) team. The Tracking Meteogram evaluation brought together OPG staff, forecasters, MDL developers, and the training division as a “proof of concept” for future OPG evaluations. During the inaugural evaluation, the OPG staff collected several valuable observations from the participants about how to refine the OPG’s operational readiness evaluation (ORE) process. During the nine months following the Tracking Meteogram evaluation, the OPG staff devoted considerable time and effort toward applying these suggestions in the planning and execution of the next OPG ORE – a series of week-long sessions designed to evaluate the usefulness of 1-minute satellite imagery, a normal operating capability of the GOES-R Series, in the forecast process. The overarching goal of this evaluation was to provide quantitative and qualitative guidance to NWS management and the GOES-R Program Office on how 1-minute satellite imagery impacts NWS forecaster decision making in a variety of weather situations. In total, eighteen NWS forecasters completed eight simulations that were developed using data from the 2013 and 2014 GOES-14 Super Rapid Scan Operations for GOES-R. During the simulations, forecaster tasks ranged from aviation forecasting and wildfire decision support services to convective initiation and integrating the 1-minute imagery into the convective warning decision making process. Feedback was gathered to assess whether 1-minute imagery had influence on forecaster decision making, confidence and correctness in making those decisions, assimilating the data into operational practices, and the extent to which there was any adverse impact on forecaster workload. For the remainder of 2015, the OPG has additional evaluations planned that include having NWS forecasters assess the value of the GOES-R Advanced Baseline Imagery using Himawari-8 imagery and the Global Services Division’s Hazard Services integrated warning platform. In addition, the OPG will investigate the viability of migrating its multiple workstation playback capability to the field, in order to enable “whole office training” simulations in the WFO environment. This presentation will provide an overview of the OPG’s accomplishments over the past year, while looking forward to the year ahead.